

Appl. No.: 10/531,836  
Amdt. dated December 19, 2006  
Reply to Office Action of September 19, 2006

#### **REMARKS/ARGUMENTS**

Reconsideration and allowance of the above identified application is respectfully requested in light of the above amendments and the following remarks.

To briefly summarize, the present invention is directed to an automotive brake test stand of the stationary type, and which comprises a mounting frame 10 that can be secured on or in the floor, or to a wall. A roller assembly 1 is mounted to the frame, so as to permit slight movement in each of at least two degrees of freedom, such as the lateral direction 8X as seen in Fig. 2 of the drawings, and the direction 8Y which corresponds to the direction of travel of the vehicle.

The roller assembly comprises two parallel rollers 12, 15 with an endless belt 14 extending about the peripheries of the rollers. A drive 21 in the form of an electric motor is provided for rotating the rollers, and thus the endless belt.

In use, the motor vehicle drives onto the roller assembly and stops on the endless belt 14, with a vehicle wheel to be tested positioned on the belt at a location between the two rollers. The rollers are then driven by the electric motor so as to rotate the belt and the wheel. Sensors are provided for measuring the force between the roller assembly and a fixed point during a braking operation, and/or the displacement that occurs, and/or the angle of rotation between the roller assembly and the fixed point.

In a preferred embodiment, the roller assembly is mounted so as to be moveable in three directions, namely, the lateral direction 8X, the travel direction 8Y, and a rotational

Appl. No.: 10/531,836  
Amdt. dated December 19, 2006  
Reply to Office Action of September 19, 2006

direction 8Z about a vertical axis. Also, in a preferred embodiment the rollers incorporate aligned guide grooves 17 for receiving portions 14a of the endless belt and thereby supporting the belt against lateral movement with respect to the rollers during operation.

In the Official Action, claims 60-66 were rejected as being anticipated by Schoeninger '185, and Claims 67-77 were rejected as being obvious from a proposed combination of Schoeninger and Müller '237. The Schoeninger patent discloses a vehicle wheel alignment system which comprises a pair of parallel rollers 105, 112 which are spaced apart so as to directly support the wheel of the vehicle therebetween. Each roller is independently supported for movement in a first direction, and a sensor is provided to provide a measurement of lateral forces exerted by the wheel so that vehicle alignment adjustments can be made. However, the structure of the wheel supporting mechanism of Schoeninger is very different from that of the presently claimed invention, in that in Schoeninger, the wheels directly contact the rollers whereas in the present invention, an endless belt encircles two rollers and directly engages the wheel.

The Examiner has recognized this deficiency of Schoeninger, and has suggested that the teaching of Müller could be combined with Schoeninger. Müller discloses a vehicle brake testing device which includes two driveable rollers 1 which directly contact the wheel of the vehicle to be tested. The brakes of the vehicle are thus checked by determining the brake force applied to the rollers 1 when braking the vehicle, column 2, lines 59-61. A vertically moveable contact plate 10 is positioned between the two rollers, and a third roller 7 is

Appl. No.: 10/531,836  
Amdt. dated December 19, 2006  
Reply to Office Action of September 19, 2006

positioned upon the plate 10 and is axially moveable to measure the lateral track of the vehicle. Thus, Müller also fails to teach or suggest an endless belt in a vehicle testing device, and indeed, it would appear that placing an endless belt about the rollers 1 of Müller would defeat an object of the patent in that a belt would interfere with the operation of the contact plate 10 and roller 7. Thus even when Schoeninger and Müller are considered collectively, the presently claimed invention is not taught or suggested.

The dependent Claims further distinguish the present invention from the disclosures of Schoeninger and Müller. For example, Claim 70 is specific to the embodiment wherein a slide plate, or roller, is mounted to underlie and support the endless belt between the two primary rollers. Claims 71 and 81 recite that the rollers include grooves which receive portions of the belt to absorb lateral forces imparted to the belt. Claim 80 is specific to the embodiment where three degrees of freedom of movement are provided and sensed. Claims 73-74 recite the rotatable support roller 25 as seen in Fig. 10 of the present application, which is totally absent from the teachings of the cited prior art.

It should be noted that claims corresponding in scope to presently pending Claim 60 were found to be both novel and inventive during prosecution of the international application, note the IPER dated 18 April 2005.

It will also be noted that in Claim 60 and several of the dependent claims, the phrase "roller or cylinder" has been simplified by shortening the phrase to "roller", which is seen to be generic and no change in scope is intended.

Appl. No.: 10/531,836  
Amdt. dated December 19, 2006  
Reply to Office Action of September 19, 2006

For the reasons set forth above, it is respectfully submitted that all of the pending claims are in condition for immediate allowance, and such action is solicited.

Respectfully submitted,



Charles B. Elderkin  
Registration No. 24,357

**Customer No. 00826**

**ALSTON & BIRD LLP**

Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, NC 28280-4000  
Tel Charlotte Office (704) 444-1000  
Fax Charlotte Office (704) 444-1111

ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON December 19, 2006.

LEGAL02/30197692v1